

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussion, is respectfully requested.

Claims 1, 3-7, and 9-15 are pending. Claims 5, 6, and 11-15 are withdrawn. By this amendment, Claims 1 and 7 are amended, and no claims are added or canceled herewith. Support for the present amendments can be found in the original specification, for example, at page 8, lines 3-9. Thus, it is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, Claims 1 and 7 were objected to; Claims 1, 3, 7, and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Takagi (Oyo Buturi, English Translation); Claims 4 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Takagi in view of Gillery (U.S. Patent No. 3,907,660); and Claims 4 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Takagi in view of Nomura (U.S. Patent No. 5,993,614).

With respect to the objection to Claims 1 and 7, Claims 1 and 7 are amended to recite “forming thin films on said substrates by generating plasma around the antenna element.” Accordingly, it is respectfully requested that the objection to Claims 1 and 7 be withdrawn.

Turning now to the rejections under 35 U.S.C. § 103(a), Applicants respectfully request reconsideration of these rejections and traverse these rejections, as discussed below.

Initially, Applicants note that the Office Action continues to refer to “Ueda” (on at least pages 4 and 5) even though the previous rejections based on Ueda have been indicated as overcome. Accordingly, this Amendment assumes that the Office Action meant to refer to Takagi instead of Ueda.

Independent Claims 1 and 7 recite, in part, “installing a plurality of substrates on both sides of and in parallel to said array antennas so as to have respective distances between the array antennas and the substrates substantially equal to the intervals,” where the intervals are defined as the spacing between the first and second linear conductors.

Takagi describes a thin film formation method in which a CVD apparatus includes a plurality of U-shaped antenna electrodes spaced equidistantly in a plane forming an array antenna. Glass base plates are provided on both sides of the array antenna to form the film simultaneously on both sides of the array antenna. Fig. 3 of Takagi shows a plurality of antenna elements, each with glass plates on both sides of the array antenna. However, the Office Action acknowledges that Takagi is *silent* with respect to the distance between the glass plates and the array antenna being equal to the intervals between the linear conductors of the antenna electrodes.

During the interview on August 10, 2010, with Examiners Miller and Meeks, it was argued that the Examiner’s mere opinion that making the distances between the array antennas and the substrates being substantially equal to the claimed intervals would have been obvious is not legally sufficient for a *prima facie* case of obviousness. ***As discussed in MPEP § 2144.05(II)(A)***, only result-effective variables can be optimized and the parameter being optimized ***must be recognized in the applied art***. The Office Action admits on pages 3 and 6 that Takagi is silent with respect to “the distances between the antenna elements and the antenna arrays being ‘substantially equal’ to each other.”

Therefore, even considering that Takagi describes electrodes being spaced in equal intervals, it is respectfully submitted that this value being substantially equal to the distance between the array antennas and the substrate was not recognized in the art as a result-

effective variable, *as discussed in MPEP §2144.05(II)(A) to maintain a rejection under 35 U.S.C. §103(a).*

The interview summary provided by Examiners Meeks and Miller following the interview on August 10, 2010, indicated that “in light of applicants further arguments, the position [regarding result-effective variables] should be *further clarified and/or developed.*”

Instead, the current Office Action provides the *same rationale* in rejecting the claims based on Takagi in the as in the previous Office Action of May 18, 2010 rejecting the claims based on Ueda. *No clarification or further development of this point was made.* The Office Action still does not show that any of the applied art disclose “respective distances between the array antennas and the substrates substantially equal to the intervals” as being result-effective variables.

Further, the Office Action on page 4, lines 1-3 acknowledges that Takagi “is silent on the process conditions specifically varied” to obtain a microcrystalline film. Therefore, if Takagi is silent in this regard, a person of ordinary skill in the art would not find it obvious to find result-effective parameters in Takagi to produce a microcrystalline film. It is respectfully submitted that the quality of deposited films is influenced by not only the characteristics of plasma, but also a vast number of other parameters. Accordingly, there is no rationale to characterize the parameter “distances between the array antennas and the substrates” as a result-effective variable.

Accordingly, it is respectfully requested that the rejection of Claims 1 and 7, and all claims dependent thereon, be withdrawn.

Regarding the rejections of Claims 4 and 10, it is noted that Claims 4 and 10 depend on Claims 1 and 7 and thus are believed to be patentable for at least the reasons discussed above with respect to Claims 1 and 7. Further, it is respectfully submitted that the remaining

cited references (Gillery and Nomura) do not cure the above-noted deficiencies discussed above with respect to Takagi. Thus, it is respectfully requested that the rejections of Claims 4 and 10 be withdrawn.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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